

Message Text

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21

ORIGIN IO-03

INFO OCT-01 ISO-00 /004 R

66011

DRAFTED BY:IO/SCT - LOU CAVANAUGH

APPROVED BY:IO/SCT - LOU CAVANAUGH

----- 122182

R 162144Z APR 76

FM SECSTATE WASHDC

INFO USMISSION IAEA VIENNA 0000

UNCLAS STATE 093091

FOLLOWING EC BRUSSELS 3831 SENT ACTION ERDA WASHDC INFO SECSTATE
OECD PARIS BONN PARIS LONDON ROME TOKYO APRIL 14 REPEATED
TO YOU QUOTE

UNCLAS USMISSION EC BRUSSELS 03831

ERDA PASS TO SIEVERING,AIA,AND BAUER,NRA

E.O. 11652: N/A

TAGS: TECHN

SUBJECT: IEA WORKING GROUP MEETING ON HIGH TEMPERATURE REACTORS
FOR PROCESS HEAT

1. AS REQUESTED IN COMMERCIAL CABLE VANDERRYN TO RUBIN DATED
MARCH 23, 1976,SOL ROSEN,ERDA/BRUSSELS,ATTENDED THE IEA INAUGURAL
MEETING OF THE WORKING PARTY ON HIGH TEMPERATURE REACTORS FOR
PROCESS HEAT HELD AT OECD ON APRIL 8. ROSEN ACCOMPANIED THE
U.S DELEGATE,DR GLEN WENSCH,ERDA HEADQUARTERS, AT THE MEETING
MINUTESWILL BE PREPARED AND DISTRIBUTED BY THE IEA SECRETARIAT.
ACTION ITEMS AND ASSESSMENTS ARE REPORTED IN THIS CABLE ASSUME
WENSCH WILL REPORT TO ERDA SEPARATELY.

2. THE PRIMARY MEETING OBJECTIVE WAS TO ESTABLISH A MECHANISM
BY WHICH POTENTIAL OPPORTUNITIES FOR JOINT R AND D PROJECTS IN
THE FIELD OF NUCLEAR PROCESS HEAT COULD BE IDENTIFIED AND UNDER-
TAKEN. THE WORKING PARTY WAS COMPOSED OF DELEGATES FROM TEN COUNTRIES

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GERMANY; U.S.; U.K.; JAPAN; ITALY; AUSTRIA; IRELAND; SWITZERLAND; SWEDEN; TURKEY, AS WELL AS THE EEC AND NEA. THE LEAD COUNTRY DELEGATION WAS HEADED BY P.ENGELMAN, A DIRECTOR OF THE KFA LABORATORY, JUELICH, GERMANY.
MR. ENGLEMAN CHAIRED THE MEETING.

3. THE FOLLOWING ACTION ITEMS WERE IDENTIFIED. ITEM 1- THE FRG WILL SEND A QUESTIONNAIRE TO ALL WORKING PARTY MEMBERS REQUESTING INFORMATION ON THE NEEDS AND REQUIREMENTS FOR HIGH TEMPERATURE REACTOR FACILITIES IN THEIR RESPECTIVE COUNTRIES. THIS SURVEY WOULD IDENTIFY THE OPTIMUM APPLICATION OF NUCLEAR PROCESS HEAT WHICH WOULD BE OF INTEREST TO INDIVIDUAL MEMBER COUNTRIES. ITEM 2 - THE FRG WILL PREPARE AND SEND OUT A QUESTIONNAIRE BY THE END OF APRIL TO OBTAIN INFORMATION TO ENABLE THE JUELICH SYSTEMS ANALYSIS GROUP TO OBTAIN INFORMATION TO ENABLE THE JUELICH SYSTEMS ANALYSIS GROUP TO ESTABLISH STRATEGIES AND SCENARIOS FOR HTR MARKET INTRODUCTION FOR BOTH PROCESS HEAT AND ELECTRICITY GENERATION. THIS ANALYSIS IS TO ENABLE PREPARATION OF A COORDINATED OPTIMUM BASIS FOR FACILITY INTRODUCTION TO REDUCE INDIVIDUAL RISKS. RESPONSES ARE DUE BY MAY 31. ITEM 3 - A MEETING OF EXPERTS WILL BE CONVENED END OF JUNE (SITE UNDESIGNATED) TO IDENTIFY PRIORITY R AND D TASKS FOR IHX (INTERMEDIATE HEAT EXCHANGER) DEVELOPMENT. THIS WOULD BE PRECEDED BY ISSUANCE OF A GUIDANCE DOCUMENT TO BE DRAFTED IN JUELICH THE WEEK OF APRIL 12, WHICH WOULD DETAIL IHX DEVELOPMENT PROGRAM NEEDS AND REQUIREMENTS BASED UPON THIS DOCUMENT. A GROUP OF EXPERTS WOULD DEFINE REQUIREMENTS FOR TESTING PROGRAMS AND IDENTIFY THE ADEQUACY OF EXISTING TESTING FACILITIES OR THE ADVANTAGES OF CONSTRUCTING A COMMON FACILITY TO CONDUCT JOINT RESEARCH. NAMES OF EXPERTS ABLE TO PARTICIPATE IN JUNE MEETING ARE TO BE SUBMITTED TO THE CHAIRMAN. ITEM 4 - THE WORKING GROUP IS SCHEDULED TO RECONVENE ON THURSDAY SEPTEMBER 9, AT OECD TO REVIEW THE RESULTS AND RECOMMENDATIONS OF THE EXPERTS' GROUP. SEPTEMBER 9 WAS CHOSEN SO AS TO PROCEED IEA ENERGY R AND D COMMITTEE MEETING SCHEDULED FOR SEPT. 14.

4. ALTHOUGH THE DELIBERATIONS OF THE WORKING GROUP RESULTED IN THE INITIAL WORK PROGRAM OUTLINED ABOVE, ROSEN CONCLUDES THAT MEANINGFUL COOPERATION IN THE AREA OF NUCLEAR PROCESS HEAT WILL NOT BE EASILY OR READILY ACHIEVED OF THE FIVE COUNTRIES MAINTAINING UNCLASSIFIED

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SIGNIFICANT DEVELOPMENT ACTIVITIES IN THE GAS REACTOR FIELD (U.S., GERMANY, U.K., FRANCE AND JAPAN) ONLY THE GERMAN REPRESENTATIVES WERE IN A POSITION TO INDICATE THAT THEIR COUNTRY WAS READY TO COMMIT TO A PROGRAM OF ACTION LEADING TO JOINT AND COORDINATED DEVELOPMENT GOALS. THE U.K. HAVING NO PLANS FOR GAS REACTOR DEVELOPMENT BEYOND THE AGR'S WAS INVOLVED IN THE SUBJECT MEETING ESSENTIALLY AS AN OBSERVER. IN THIS REGARD, THE U.K. DELEGATE EXPRESSED DOUBTS THAT HIS COUNTRY

COULD PARTICIPATE IN THE MAJOR HARDWARE ORIENTED PROJECT IDENTIFIED IN ITEM 3 ABOVE. FRANCE OF COURSE, WAS NOT REPRESENTED AT ALL. LITTLE ENTHUSIASM WAS DISPLAYED BY THE JAPANESE DELEGATE WHO ALSO INDICATED RESERVATIONS IN HIS COUNTRY'S ABILITY TO INVOLVE ITSELF IN ACTION ITEM 3. THE U.S DELEGATE, ALTHOUGH EXPRESSING AN INTEREST IN NUCLEAR PROCESS HEAT, ALSO COULD NOT ASSUME AN ACTIVE ROLE BECAUSE OF UNCERTAINTIES ASSOCIATED WITH THE REASSESSMENT OF THE GAS REACTOR PROGRAM CURRENTLY UNDERWAY IN THE U.S. THIS LACK OF A WELL DEFINED U.S PROGRAM AND THE ABSENCE OF A POSITIVE CONTRIBUTION BY THE U.S HAD A DAMPENING EFFECT ON THE MEETING.

5. THE LACK OF CONSENSUS AS TO THE OBJECTIVES OF HTR DEVELOPMENT AND THUS THE ABSENCE OF COMMON AREAS WHERE OPTIMUM AND MUTUALLY BENEFICIAL PROGRAMS CAN BE CONDUCTED IS AN ADDITIONAL ISSUE ADVERSELY AFFECTING THE POTENTIAL FOR MEANINGFUL COOPERATION. THE JAPANESE DELEGATE AS WELL AS THE DELEGATES FROM ITALY AND SWEDEN INDICATED THAT THEIR COUNTRY'S MAIN GOALS WERE TO EMPLOY PROCESS HEAT FOR STEEL MAKING AS OPPOSED TO COAL GASIFICATION OR OTHER HIGH TEMPERATURE APPLICATIONS. THE GERMAN POSITION, HOWEVER, WAS STATED AS VIEWING NUCLEAR PROCESS HEAT UNITS AS TOO LARGE FOR STEEL MAKING. RATHER, IT WAS FELT THAT HTR'S SHOULD BE DEVELOPED FOR COAL GASIFICATION AND DISTRICT HEAT APPLICATIONS. THE U.K. DELEGATE ALSO MENTIONED THE EXISTENCE OF A SMALL HYDROGEN GRID IN THE U.K. WITH POTENTIAL FOR HIGH TEMPERATURE GAS PIPELINE APPLICATIONS. ON THE OTHER HAND, BOTH THE SWISS WHO ARE CONDUCTING JOINT DIRECT CYCLE ACTIVITIES WITH GERMANY, AND TURKEY ENVISION HTR'S FOR ELECTRICITY PRODUCTION. THIS IS IN DIRECT CONTRAST TO THE CURRENT OFFICIAL GERMAN GOVERNMENT POSITION. THE EEC DELEGATE INDICATED THAT HIS ORGANIZATION ENVISIONED A NEED FOR HTR'S BECAUSE THEY WOULD INTRODUCE A NEEDED DIVERSITY IN NUCLEAR TECHNOLOGY, ALLEVIATE POTENTIAL SITE AVAILABILITY PROBLEMS, (BECAUSE HTR'S ARE BETTER SUITED TO REGIONS OF

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HIGH POPULATION DENSITY) BUT, NEVERTHELESS, INDICATED THAT AFTER A FINAL MEETING TO BE HELD ON MAY 19 THE EEC WOULD PROBABLY COME OUT WITH A LUKEWARM ENDORSEMENT OF HTR'S AND A RATHER STRONG ENDORSEMENT OF THE FAST GAS REACTOR. THE EEC DELEGATE SUPPORTED BY THE SWISS ALSO INDICATED THAT PERHAPS PROCESSES SUCH AS THE AMMONIA CYCLE CAN UTILIZE LOWER TEMPERATURE NUCLEAR HEAT, THUS ELIMINATING SOME HIGH TEMPERATURE APPLICATIONS. IT THUS APPEARS THAT ACTION ITEM 1, WHICH SURVEYS PARTICIPANTS' NEEDS, MAY BE THE MOST IMPORTANT FIRST STEP IN ESTABLISHING A FRAMEWORK FOR MUTUALLY BENEFICIAL PROGRAMS AND THAT A SUCCESSFUL EFFORT WILL DEPEND UPON A CONVERGENCE OF IDEAS AMONGST INTERESTED PARTIES.

6. THIS SAME PROBLEM ALSO APPEARS DIRECTLY IN ACTION ITEM 3, WHICH IS INTENDED TO LEAD TO SUBSTANTIVE HARDWARE ORIENTED PRO-

GRAMS. THE GERMAN DELEGATION CAME PREPARED WITH A PROPOSAL WHICH IDENTIFIED IHX DEVELOPMENT AS A PRIORITY R AND D TASK. NO OTHER TASKS WERE TABLED. JAPAN, U.K., SWITZERLAND,BELGIUM, AND TURKEY DID NOT EXPRESS INTEREST IN PROVIDING EXPERTS TO DEFINE JOINT COOPERATIVE EFFORTS IN THIS AREA.ON THE OTHER HAND,AUSTRIA,ITALY,EEC AND THE U.S EXPRESSED INTEREST. HOWEVER,IT IS BY NO MEANS CLEAR THAT THIS DEVELOPMENT AREA SATISFIED US. NEEDS AND PRIORITIES AT THIS TIME OR MORE IMPORTANTLY, AFTER PROGRAM DEFINITION RESULTING FROM THE CURRENT ERDA RE-ASSESSMENT. (IHX DEVELOPMENT,FOR EXAMPLE,MAY BE DEEMED UNNECESSARY FOR THE LONG TERM.) IF THIS IS INDEED THE CASE,IT WILL BE ESSENTIAL FOR THE U.S. TO OFFER A COUNTER PROPOSAL AT SOME EARLY DATE IF WE DESIRE PROCESS HEAT TO BE A MEANINGFUL IEA PROJECT. IT HAS BEEN SUGGESTED BY THE IEA R AND D COMMITTEE,THAT ANY WORKING GROUP UNABLE TO FORMULATE SUBSTANTIVE PROJECTS WITHIN A 12-18 MONTH PERIOD BE DISSOLVED.

7. FINALLYIT IS NOTED THAT THE NEA-IEA JURISDICTIONAL DISPUTE SURFACED ON SEVERAL OCCASIONS FOR THE RECORD,THE NEA REPRESENTATIVE SIMPLY NOTED A NUMBER OF TIMES THAT COOPERATION WITH NEA SHOULD BE ENCOURAGED. HINTON UNQUOTE ROBINSON

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Message Attributes

Automatic Decaptioning: X
Capture Date: 01 JAN 1994
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: COMMITTEE MEETINGS, NUCLEAR REACTORS
Control Number: n/a
Copy: SINGLE
Draft Date: 16 APR 1976
Decaption Date: 01 JAN 1960
Decaption Note:
Disposition Action: n/a
Disposition Approved on Date:
Disposition Authority: n/a
Disposition Case Number: n/a
Disposition Comment:
Disposition Date: 01 JAN 1960
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1976STATE093091
Document Source: CORE
Document Unique ID: 00
Drafter: LOU CAVANAUGH
Enclosure: n/a
Executive Order: N/A
Errors: N/A
Film Number: D760146-1099
From: STATE
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1976/newtext/t19760452/aaaabrsl.tel
Line Count: 190
Locator: TEXT ON-LINE, ON MICROFILM
Office: ORIGIN IO
Original Classification: UNCLASSIFIED
Original Handling Restrictions: n/a
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 4
Previous Channel Indicators: n/a
Previous Classification: n/a
Previous Handling Restrictions: n/a
Reference: n/a
Review Action: RELEASED, APPROVED
Review Authority: oatisao
Review Comment: n/a
Review Content Flags:
Review Date: 30 MAR 2004
Review Event:
Review Exemptions: n/a
Review History: RELEASED <30 MAR 2004 by ellisoob>; APPROVED <15 SEP 2004 by oatisao>
Review Markings:

Margaret P. Grafeld
Declassified/Released
US Department of State
EO Systematic Review
04 MAY 2006

Review Media Identifier:
Review Referrals: n/a
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
Secure: OPEN
Status: NATIVE
Subject: IEA WORKING GROUP MEETING ON HIGH TEMPERATURE REACTORS FOR PROCESS HEAT
TAGS: TECH, IEA
To: IAEA VIENNA
Type: TE
Markings: Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 04 MAY 2006